

ENSREG – Introductory Session – Dominique Minière (10 min) 28 juin 2017

1.

First of all, I want to thank ENSREG for organizing this conference on nuclear safety in Europe, which is the overriding priority of all nuclear actors/operators in the world.

EDF is the largest nuclear utility worldwide, with 63 GW and 58 nuclear reactors in France, 8,9 GW and 15 reactors in UK, and shares of nuclear utilities in US, China, Belgium and Switzerland.

The utility operator holds the primary responsibility for nuclear safety. **Safety is the overriding priority** of all nuclear operators of all the EDF Group.

- At every stage of the plant lifecycle (design, operation, decommissioning)
- With excellence in equipment reliability, human performance, and efficient work management
- With a strong nuclear safety culture amongst staff and contractors

Safety culture is important from the boardroom to the individual plant operator.

At EDF, an in-house independent nuclear assessment function is put in place at power station level, company level and Group level.

The nuclear regulator sets specific safety standards and expectations. Its role is to routinely ensure that measures being implemented by the operator are adequate for achieving and sustaining safety standards. This requires a strong regulatory body with expert capabilities as the subject matter is highly specialised. It also requires a regulator with a high degree of authority, free of any influence other than its obsession with nuclear safety.

2.

2016 has been a difficult year for our nuclear existing fleet. Due mainly to 2 issues:

- **Carbon segregation issue**, as in last August, we pointed out that carbon segregation was much more than expected on some steam generators channel heads. This carbon segregation issue has been analysed on all components after that such issue was put in evidence on Flamanville 3 vessel head.
- **Creusot forging irregularities**, pointed out after audits in Creusot factory. Audits requested by EDF after the Flamanville 3 vessel head issue and other “weak signals” we got in 2015.

This year, we are progressively recovering from these difficulties. We are progressively fixing the carbon segregation issues and we have set upon important comprehensive program to try to understand where this issue is coming from. We are analysing all the 2000 manufacturing files on components coming from Creusot, without major issue up to now. And Creusot forging

is progressively setting up and implementing a strong new quality organization, including training and equipment investments, enabling a strong quality improvement.

This difficult year should convince us even more that, whatever the impacts, whatever the troubles on our fleet, whatever the criticism we receive, we have to go in depth on the issue. Because it is our responsibility as an operator to know and to assess the consequences of what we are pointing out. "Safety is the overriding priority" is a good message, but it is mainly when driving such difficulties that such message is meaningful.

3.

In the meantime, such difficulties should not hide that in 2016 EDF nuclear fleet results were solid and demonstrated that our basics are robust.

We set new safety records in 2016 with the lowest number of automatic trips and the lowest forced lost rate ever achieved.

These safety results are remarkable especially as we proceed these last 10 years to a huge competencies renewal. Despite numerous recruitments these last years, EDF safety results have been remaining solid and have been improving. So that I can tell you today that the integration of the new generation is a success. It proves how important is our focus on human resources management, on training and competences development. We managed to transfer nuclear culture to all our new employees.

4.

In the upcoming years, EDF has to manage several major industrial programs:

- **Major renovation works:** Extend operating lifetime of the existing nuclear fleet and manage the investment programme, with an annual generation target of 420 TWh. A specific session is dedicated to long term operation later on, leading by Etienne Dutheil.
- **Decommissioning and Waste:** Develop and validate on the international scale an effective industrial decommissioning and radioactive waste management sector. As a responsible nuclear operator, we want to demonstrate our full control along the entire life cycle, by efficiently managing decommissioning projects and waste generated by our power plants in operating or dismantlement phase. Proving our competencies in nuclear reactor decommissioning and in waste management is a key point of EDF strategy in the nuclear industry.
- **New nuclear:** We are carrying out general tests of our new reactor, Flamanville 3, with the objective of a commissioning at the end of 2018. At the same time, we are taking part of the general tests of Taishan, which are at the last step before fuel loading, and we go on preparing Hinkley Point C project in UK. We collect and integrate all the experience we have gained to prepare the future generation of reactors.

Nuclear safety is based on the principle of clarity of responsibility and control, openness and transparency, strong and transparent civic dialogue and approaches where citizens are given a say in the matter. Public acceptance is essential and vital.

I do believe that nuclear industry has a bright future. But providing that 2 conditions are met: nuclear safety is ensured and new nuclear shall be competitive. In the meantime, 2016 has reminded us once again that we shall, all of us, never ever forget that **nuclear safety goes with humility.**

Thank you for your attention.